

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number  
**WO 2005/048839 A1**

(51) International Patent Classification<sup>7</sup>: **A61B 5/0488, 5/0402**

JALDE, Fredrik [SE/SE]; Gustavslundsvägen 173, S-167 51 Bromma (SE).

(21) International Application Number:  
PCT/SE2004/001690

(74) Agent: ALBIHNS STOCKHOLM AB; Linnégatan 2, P.O. Box 5581, S-114 85 Stockholm (SE).

(22) International Filing Date:  
18 November 2004 (18.11.2004)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: Swedish

(26) Publication Language: English

(30) Priority Data:  
0303061-6 19 November 2003 (19.11.2003) SE

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,

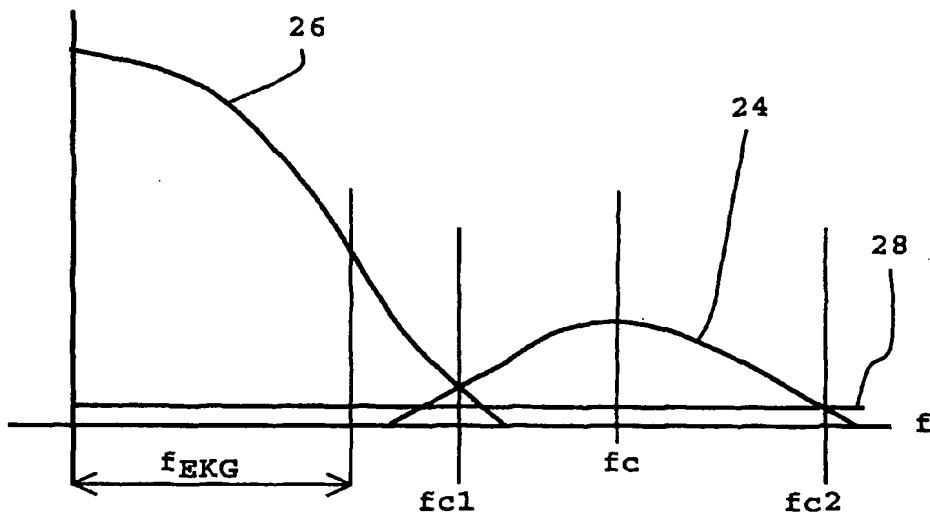
(71) Applicant (for all designated States except US): MAQUET CRITICAL CARE AB [SE/SE]; Röntgenvägen 2, S-171 95 Solna (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BLOMBERG, Urban [SE/SE]; Schultzvägen 22, S-170 63 Solna (SE).

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR DETERMINING AN EMG SIGNAL



WO 2005/048839 A1

(57) Abstract: Method for filtering an EMG-signal out of a raw signal, captured via a number of electrodes, which are designed to be placed to detect signals from a diaphragm and functionally connected to a respective signal channel, is described. The method results in that better signals can be filtered out by estimating an EKG-signal out of the raw signal within a frequency region lying outside the frequency region of the EMG-signal and, depending on the estimated EKG-signal, determining an EMG-window within which the EMG-signal is to be filtered out.



SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

— *with international search report*